# 2009 Consumer Confidence Report

Water System Name: **MD-46 Ahwahnee** Report Date: 6/17/10

*We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2009.*

**Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.**

Type of water source(s) in use: Six deep wells drawing water from fractured rock.

Name & location of source(s): The wells, designated as MCE1, MCE2, MCE3, ACC1, ACC2, and ACC3, are located near Miami Creek Estates and Ahwahnee Country Club subdivisions within the Ahwahnee Maintenance District

Drinking Water Source Assessment information: A source water assessment was conducted for all six wells in May 2002. While no contaminates were found, other than those occurring naturally, the assessment identified local septic systems and activities at the golf course as having the potential for outside contamination. A copy of the complete assessment may be viewed at the Madera County Environmental Health Department, by visiting the State's website, www.dhs.ca.gov/ps/ddwem/technical/dwp/source_info/source_index.htm, or by requesting a summary of the assessment from Environmental Health at (559) 675-7823.

Time and place of regularly scheduled board meetings for public participation: Meetings are held at 9:00 a.m. each Tuesday, except the fifth Tuesday of any month, at the Board of Supervisors Chambers: 200 W 4th Street, Madera. Visit the County's website, www.madera-county.com/supervisors/agenda.html for a copy of the agenda.

For more information, contact: Julio Padilla Phone: (559) 675-7820

## TERMS USED IN THIS REPORT

**Maximum Contaminant Level (MCL)**: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG)**: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

**Public Health Goal (PHG)**: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

**Maximum Residual Disinfectant Level (MRDL)**: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG)**: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Primary Drinking Water Standards (PDWS)**: MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards (SDWS)**: MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

**Treatment Technique (TT)**: A required process intended to reduce the level of a contaminant in drinking water.

**Regulatory Action Level (AL)**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Variances and Exemptions**: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND**: not detectable at testing limit

**ppm**: parts per million or milligrams per liter (mg/L)

**ppb**: parts per billion or micrograms per liter (ug/L)

**ppt**: parts per trillion or nanograms per liter (ng/L)

**ppq**: parts per quadrillion or picogram per liter (pg/L)

**pCi/L**: picocuries per liter (a measure of radiation)

**The sources of drinking water** (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants that may be present in source water include:**

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

**In order to ensure that tap water is safe to drink**, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

**Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent.** The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

**TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA**

| Microbiological Contaminants (complete if bacteria detected) | Highest No. of Detections | No. of months in violation | MCL | MCLG | Typical Source of Bacteria |
|---|---|---|---|---|---|
| Total Coliform Bacteria | (In a mo.) 0 | 0 | More than 1 sample in a month with a detection | 0 | Naturally present in the environment |
| Fecal Coliform or *E. coli* | (In the year) 0 | 0 | A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli* | 0 | Human and animal fecal waste |

**TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER**

| Lead and Copper (complete if lead or copper detected in the last sample set) | No. of samples collected | 90th percentile level detected | No. sites exceeding AL | AL | PHG | Typical Source of Contaminant |
|---|---|---|---|---|---|---|
| Lead (ppb) – 2008 | 10 | <5 | 0 | 15 | 2 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) – 2008 | 10 | 0.11 | 0 | 1.3 | 0.17 | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |

| TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS | | | | | | |
|---|---|---|---|---|---|---|
| **Chemical or Constituent** (and reporting units) | **Sample Date** | **Level Detected** | **Range of Detections** | **MCL** | **PHG (MCLG)** | **Typical Source of Contaminant** |
| Sodium (ppm) | 6/08 | MCE 14.4 ACC 73.1 | MCE 13.7–14.9 ACC 41.6 – 126 | none | none | Salt present in the water and is generally naturally occurring |
| Hardness (ppm) | 6/08 | MCE 64.6 ACC 81.6 | MCE 55 – 69.4 ACC 63.2 – 93.8 | none | none | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |

**Any violation of an MC or AL is asterisked. Additional information regarding the violation is provided later in this report.*

| TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD | | | | | | |
|---|---|---|---|---|---|---|
| **Chemical or Constituent** (and reporting units) | **Sample Date** | **Level Detected** | **Range of Detections** | **MCL [MRDL]** | **PHG (MCLG) [MRDLG]** | **Typical Source of Contaminant** |
| Arsenic (ppb) | 2, 4, 5, 6, 8 & 12/09 | MCE 2.0 ACC 8.4 | MCE 2 ACC 3.3-11.7 | 10 | 0.004 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| Chromium (ppb) | 6/08 | MCE 6.10 ACC 8.2 | MCE 5.6-6.5 ACC 5.8-11 | 50 | (100) | Discharge from steel & pulp mills and chrome plating; erosion of natural deposits |
| Fluoride (ppm) | 6/08 | MCE 0.1 ACC 0.4 | MCE <.1-.1 ACC .1-.7 | 2.0 | 1 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| Gross Alpha (pCi/L) | 2, 5 & 8/09 | MCE **20.7*** ACC 14.4 | MCE 14-28 ACC 5-29 | 15 | (0) | Erosion of natural deposits |
| Nitrate (ppm) | 1/09 | MCE 2.9 ACC 5.2 | MCE 2-3.9 ACC 2-11.7 | 45 | 45 | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| Haloacetic Acids (ppb) | 7/08 | MCE 1.7 ACC 1.7 | MCE 1.7 ACC 1.7 | 60 | N/A | By-product of drinking water chlorination |
| Uranium (pCi/L) | 2, 5 & 8/09 | MCE **21.3*** ACC 13.3 | MCE 11.3-31 ACC 4.5-27.3 | 20 | 0.43 | Erosion of natural deposits |

| TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD | | | | | | |
|---|---|---|---|---|---|---|
| **Chemical or Constituent** (and reporting units) | **Sample Date** | **Level Detected** | **Range of Detections** | **MCL** | **PHG (MCLG)** | **Typical Source of Contaminant** |
| Chloride (ppm) | 6/08 | MCE 3.5 ACC 101.7 | MCE 3.2-4 ACC 12.3-234 | 500 | N/A | Runoff/leaching from natural deposits; seawater influence |
| Specific Conductance (µMHO/cm) | 3 & 6/08 | MCE 183.3 ACC 546.7 | MCE 130-220 ACC 340-880 | 900 | N/A | Substances that form ions when in water; seawater influence |
| Sulfate (ppm) | 6/08 | MCE 2.2 ACC 9.0 | MCE 2-2.3 ACC 7.4-9.8 | 500 | N/A | Runoff/leaching from natural deposits |
| Total Dissolved Solids (ppm) | 5/05 & 8/07 | MCE 133.3 ACC 438.2 | MCE 121-142 ACC 207-570 | 1000 | N/A | Runoff/leaching from natural deposits |

| | | | | | | |
|---|---|---|---|---|---|---|
| Turbidity (Units) | 6/08 | MCE 0.1<br>ACC 0.1 | MCE 0.1<br>ACC 0.1-0.2 | 5 | N/A | Soil runoff |
| Zinc (ppm) | 6/08 | MCE 0.1<br>ACC 0.1 | MCE 0.01<br>ACC <.05-0.073 | 5.0 | N/A | Runoff/leaching from natural deposits; industrial wastes |

**TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS**

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | Notification Level | Health Effects Language |
|---|---|---|---|---|---|
| Boron (ppm) | 7/03 | MCE <.1<br>ACC .35 | | 1 | Some men who drink water in excess of the notification level over many years may experience reproductive effects, based on studies in dogs |
| Vanadium (ppb) | 7/03 | MCE<br>7.23<br>ACC <3 | | 50 | The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals |

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

## Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## Summary Information for Contaminants Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement

We are required to *monitor* your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

The Ahwahnee water system continues to have a violation of the MCL in 3 primary areas: **gross alpha & uranium** in the MCE wells and **Arsenic** in one of the ACC wells. Please take note of the following information. ***Gross Alpha Particle Activity:** Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. ***Uranium:** Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer. ***Arsenic:** Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer. The water from the MCE wells is blended with water from the ACC wells which reduces the Gross Alpha and Uranium levels in the system below the MCL And the blending of water form the three ACC wells reduces the level in the system below the MCL.

We're proud that through blending your drinking water meets or exceeds all Federal and State requirements. Though we've learned through our monitoring and testing that some contaminants have been detected, the EPA has determined that your water is SAFE at these levels. The contaminate levels in the water appear to be slowly increasing. The district will continue to pursue additional water sources and funding for treating the water to keep the water safe to drink.